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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/800,287	03/12/2004	Peter T. Barrett	MS1-1796US	1313	
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421 W RIVERSIDE AVENUE SUITE 500			MATTIS, JASON E		
SPOKANE, W	/A 99201		ART UNIT	PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/800,287	BARRETT ET AL.			
Office Action Summary	Examiner	Art Unit			
	Jason E. Mattis	2616			
The MAILING DATE of this communication app	ears on the cover sheet with the c	correspondence address			
Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tir will apply and will expire SIX (6) MONTHS from 1, cause the application to become ABANDONE	N. mely filed the mailing date of this communication. ED (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on	_·				
2a) This action is FINAL . 2b) ☑ This					
) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.			
Disposition of Claims					
4) Claim(s) 1-40 is/are pending in the application.					
4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.					
6)⊠ Claim(s) <u>1-40</u> is/are rejected.					
7) Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or	r election requirement.	•			
Application Papers					
9) The specification is objected to by the Examine	r.				
10) The drawing(s) filed on is/are: a) acce	epted or b) objected to by the	Examiner.			
Applicant may not request that any objection to the	drawing(s) be held in abeyance. Se	e 37 CFR 1.85(a).			
Replacement drawing sheet(s) including the correct	·				
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form PTO-152.			
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)-(d) or (f).			
a) ☐ All b) ☐ Some * c) ☐ None of:	•				
 Certified copies of the priority documents 	s have been received.	•			
2. Certified copies of the priority documents	• •				
3. Copies of the certified copies of the prior	•	ed in this National Stage			
application from the International Bureau	* **				
* See the attached detailed Office action for a list	of the certified copies not receive	30			
•					
Attachment(s)					
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) ∭ Interview Summary Paper No(s)/Mail D				
3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application					
Paper No(s)/Mail Date <u>2 papers</u> .	6)				

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DETAILED ACTION

Claim Objections

1. Claims 2, 3, 8, 9, 33, 35, and 37 are objected to because of the following informalities:

Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. These claims all either contain the phrase "capable of" or "adapted to" which are both phrases that suggest or make optional but do require steps to be performed. It is recommended that these phrases be removed from the claims listed above and any other claims they appear in.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 1-4, 6, 7, 9, 20-23, 25, and 27 rejected under 35 U.S.C. 102(e) as being anticipated by Babiarz et al. (U.S. Publication US 2005/0047340 A1).

With respect to claim 1, Babiarz et al. discloses a processor-accessible media comprising processor-executable instructions (See page 5 paragraph 53 of Babiarz et al. for reference to a system and method being implemented by processors operating in accordance with stored instructions). Babiarz et al. also discloses transmitting a send request having a priority (See page 4 paragraphs 47-48 of Babiarz et al. for reference to call admission requests including priority levels). Babiarz et al. further discloses receiving a threshold priority, comparing the priority of the send request to the threshold priority, and determining if the send request is selected responsive to the comparing (See page 4 paragraph 48 of Babiarz et al. for reference to receiving a certain priority, which is a threshold priority, where calls above the certain priority may be admitted and while other calls are not, meaning the priority of a call admission request is compared to the certain priority and a determination of whether the call admission request is selected is made in response to the comparison).

With respect to claim 2, Babiarz et al. discloses transmitting the request to a sender that sends media data stipulated in the send request to a destination client designated in the send request (See page 2 paragraphs 27-28 and Figure 1 of Babiarz et al. for reference to requesting a packet flow such as a video flow to be sent from a sender to a destination).

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With respect to claim 3, Babiarz et al. for reference to the threshold priority representing a send request cutoff that indicates a least important priority for send requests selected for sending (See page 4 paragraph 48 of Babiarz et al. for reference to the certain priority level being a priority level cutoff for admitting new call requests).

With respect to claim 4, Babiarz et al. discloses that the priority is dependent on whether requested media data is deadline media data versus early media data, with deadline data having a relatively higher priority (See page 4 paragraph 48 of Babiarz et al. for reference to the priority relating to delay sensitive calls and non delay sensitive calls, with delay sensitive calls, such as emergency calls, having a higher priority).

With respect to claim 6, Babiarz et al. discloses selecting the send request if it is ascertained that its priority is more important than the threshold priority (See page 4 paragraph 48 for reference to admitting requests with a priority above the certain priority level).

With respect to claim 7, Babiarz et al. discloses not selecting the request if it is ascertained that its priority is not more important than the threshold priority (See page 4 paragraph 48 for reference to not admitting requests with a priority less than the certain priority level).

With respect to claim 9, Babiarz et al. discloses software implementing a scheduler (See page 5 paragraph 53 of Babiarz et al. for reference to a system and

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method being implemented by processors operating in accordance with stored instructions).

With respect to claim 20, Babiarz et al. discloses an arrangement for prioritized distributed sending of media data (See the abstract of Babiarz et al. for reference to admission control for sending media data). Babiarz et al. also discloses a scheduler means sending requests having priorities and determining if the send request have been selected using the send priorities and a threshold priority (See page 4 paragraphs 47-48 of Babiarz et al. for reference to sending call admission requests including priority levels and for reference to receiving a certain priority, which is a threshold priority, where calls above the certain priority may be admitted and while other calls are not, meaning the priority of a call admission request is compared to the certain priority and a determination of whether the call admission request is selected is made in response to the comparison). Babiarz et al. further discloses a sender means sending media data in response to requests in accordance with the send priorities and ascertaining the threshold priority based on the send priorities and a send bandwidth (See page 4 paragraphs 47-48 of Babiarz et al. for reference to determining the certain priority based on call admission request priorities and the amount of available bandwidth and for reference to admitting calls in accordance with request priorities).

With respect to claim 21, the send requests having a designated destination client, stipulated media data portions, and send priorities (See page 2 paragraphs 27-

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28 and page 4 paragraph 48 of Babiarz et al. for reference to the requests stipulating a destination a priority and a specific media).

With respect to claim 22, Babiarz et al. discloses transmitting the request to a sender that sends media data stipulated in the send request to a destination client designated in the send request (See page 2 paragraphs 27-28 and Figure 1 of Babiarz et al. for reference to requesting a packet flow such as a video flow to be sent from a sender to a destination).

With respect to claim 23, Babiarz et al. discloses comparing send priorities to the threshold priority (See page 4 paragraph 48 for reference to comparing request priorities to the certain priority).

With respect to claim 25, Babiarz et al. discloses a plurality of schedulers and senders (See page 4 paragraph 49 and Figure 3 of Babiarz et al. for reference to a plurality of devices acting as both senders and schedulers as a part of network 300).

With respect to claim 27, Babiarz et al. discloses that the arrangement comprises one or more processor-accessible media (See page 5 paragraph 53 of Babiarz et al. for reference to a system and method being implemented by processors operating in accordance with stored instructions).

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Babiarz et al. in view of Seeds (U.S. Pat. 6763520 B1).

With respect to claim 5, Babiarz et al. does not disclose that the priority is dependent on whether the media data is associated with fewer versus many senders with association with fewer senders having a relatively higher priority.

With respect to claim 5, Seeds, in the field of communications, discloses a priority dependent on whether media data is associated with fewer versus many senders with association with fewer senders having a relatively higher priority (See column 5 liens 30-40 of Seeds for reference to priority used to balance service being based on a number of idle server instances, which is a number of senders available). Using a priority dependent on whether media data is associated with fewer versus many senders with association with fewer senders having a relatively higher priority has the advantage of allowing data requests to be serviced more efficiently.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Seeds, to combine using a priority

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dependent on whether media data is associated with fewer versus many senders with association with fewer senders having a relatively higher priority, as suggested by Seeds, with the system and method of Babiarz et al., with the motivation being to allow data requests to be serviced more efficiently.

6. Claims 8 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babiarz et al. in view of the paper by Gonzalez et al. titled "Load Sharing Based on Popularity in Distributed Video on Demand Systems" (as cited in the applicant's IDS).

With respect to claims 8 and 24, Babiarz et al. does not disclose that if the send request is not selected, determining if the priority of the send request is more important than at least one other threshold priority from another sender and, if so, transmitting a send request to the sender.

With respect to claims 8 and 24, Gonzalez et al., in the field of communications, discloses that when a send request is not selected, it is determined if the priority of the send request is more important than a threshold priority from another sender and, if so, transmitting a send request to the sender (See Section 3 titled "Load Sharing in Distributed VOD Systems" on page 6 of Gonzalez et al. for reference to if a request does not have priority to be serviced by a server determining if another server can service the request, and if so, sending a request to the another server). Using a method where when a send request is not selected, it is determined if the priority of the send request is more important than a threshold priority from another sender and, if so, transmitting a send request to the

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sender has the advantage of allowing data requests to be serviced from a different source even if the first requested source cannot service the request.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Gonzalez et al., to combine using a method where when a send request is not selected, it is determined if the priority of the send request is more important than a threshold priority from another sender and, if so, transmitting a send request to the sender, as suggested by Gonzalez et al., with the system and method of Babiarz et al., with the motivation being to allow data requests to be serviced from a different source even if the first requested source cannot service the request.

7. Claims 10, 11, 14-16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babiarz et al. in view of Bhatia et al. (U.S. Pat. 6112101).

With respect to claim 10, Babiarz et al. discloses a processor-accessible media comprising processor-executable instructions (See page 5 paragraph 53 of Babiarz et al. for reference to a system and method being implemented by processors operating in accordance with stored instructions). Babiarz et al. also discloses receiving a plurality of send requests having respective priorities (See page 4 paragraphs 47-48 of Babiarz et al. for reference to call admission requests including priority levels). Babiarz et al. further discloses ascertaining a threshold priority based on the priorities of the send requests responsive to a send bandwidth (See page 4 paragraph 48 of Babiarz et al. for reference to determining a certain

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priority, which is a threshold priority, based on priorities and available bandwidth, where calls above the certain priority may be admitted and while other calls are not). Babiarz et al. does not specifically disclose broadcasting the threshold priority.

With respect to claim 18, Babiarz et al. does not disclose multicasting the threshold priority to schedulers.

With respect to claims 10 and 18, Bhatia et al., in the field of communications discloses broadcasting a threshold priority (See column 3 lines 46-53 of Bhatia et al. for reference to broadcasting a threshold priority, which is a multicast of the priority to multiple schedulers). Broadcasting a threshold priority has the advantage of allowing the current threshold priority to be known before a data request is made such that data requests not conforming to the threshold priority are not sent.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Bhatia et al., to combine broadcasting a threshold priority, as suggested by Bhatia et al., with the system and method of Babiarz et al., with the motivation being to allow the current threshold priority to be known before a data request is made such that data requests not conforming to the threshold priority are not sent.

With respect to claim 11, Babiarz et al. discloses transmitting the request to a sender that sends media data stipulated in the send request to a destination client designated in the send request (See page 2 paragraphs 27-28 and Figure 1 of Babiarz et al. for reference to requesting a packet flow such as a video flow to be sent from a sender to a destination).

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With respect to claim 14, Babiarz et al. discloses accumulating bandwidth consumption of the send requests with respective priorities thereof (See page 4 paragraph 48 and Figure 5 of Babiarz et al. for reference to accumulating the current bandwidth of the requests being serviced for each priority).

With respect to claim 15, Babiarz et al. discloses determining a last send request at which the accumulated bandwidth is less than or equal to the send bandwidth (See page 4 paragraph 48 and Figure 5 of Babiarz et al. for reference to determining a last send request before the traffic level bandwidth is exceeded).

With respect to claim 16, Babiarz et al. discloses setting the threshold priority to a priority corresponding to the last request (See page 4 paragraph 48 and Figure 5 of Babiarz et al. for reference to setting the certain priority in response to the priority of the last request before the traffic level bandwidth is exceeded).

With respect to claim 19, Babiarz et al. discloses software implementing a sender (See page 5 paragraph 53 of Babiarz et al. for reference to a system and method being implemented by processors operating in accordance with stored instructions).

8. Claims 12, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babiarz et al. in view of Bhatia et al. and in further view of Klotsche (U.S. Pat. 7155533 B2).

With respect to claim 12, the combination of Babiarz et al. and Bhatia et al. does not disclose ranking the send requests according to respective priorities.

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With respect to claim 13, the combination of Babiarz et al. and Bhatia et al. does not disclose detecting a send request that corresponds to a send request cutoff using the ranked priority.

With respect to claim 17, Babiarz et al. discloses discarding send requests that do not fit within the send bandwidth (See page 4 paragraph 48 and Figure 5 of Babiarz et al. for reference to discarding send requests with priorities below the certain priority in response to the current available bandwidth). The combination of Babiarz et al. and Bhatia et al. does not disclose partially discarding and partially retaining a send request that is only partially within the send bandwidth.

With respect to claims 12, 13, and 17, Klotsche, in the field of communications, discloses ranking requests by priority for transmission in time slots, detecting a last send request corresponding to a cutoff using the ranked priority and partially sending the last send request if it is only partially within the send bandwidth (See column 10 lines 17-27 of Klotsche for reference to ranking requests from highest to lowest priority, servicing all time slot requests in priority order until a last request fitting into available time slots is determined, and partially sending the last request if it does not completely fit in the last available time slot). Ranking requests by priority for transmission in time slots, detecting a last send request corresponding to a cutoff using the ranked priority and partially sending the last send request if it is only partially within the send bandwidth has the advantage of allowing the entire bandwidth to be used in the most efficient manner based on priorities.

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It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Klotsche, to combine ranking requests by priority for transmission in time slots, detecting a last send request corresponding to a cutoff using the ranked priority and partially sending the last send request if it is only partially within the send bandwidth, as suggested by Klotsche, with the system and method of Babiarz et al. and Bhatia et al., with the motivation being to allow the entire bandwidth to be used in the most efficient manner based on priorities.

9. Claims 26, 28-32, 35-38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babiarz et al. in view of Klotsche.

With respect to claim 26, Babiarz et al. does not disclose ranking the send requests according to respective priorities.

With respect to claim 28, Babiarz et al. discloses a system configured to perform actions (See a system controlling admission of real time packet flows).

Babiarz et al. also discloses transmitting a send request associated with a send priority (See page 4 paragraphs 47-48 of Babiarz et al. for reference to call admission requests including priority levels). Babiarz et al. also disclose ascertaining a threshold priority responsive to send request priorities and a send bandwidth, transmitting the threshold priority, and determining if the send request is being honored using the threshold priority and the send priority of the send request (See page 4 paragraph 48 of Babiarz et al. for reference to receiving a certain priority, which is a threshold priority, based on priorities and bandwidth limitations, where

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calls above the certain priority may be admitted and while other calls are not, meaning the priority of a call admission request is compared to the certain priority and a determination of whether the call admission request is selected is made in response to the comparison). Babiarz et al. does not disclose ranking the send requests according to respective priorities.

With respect to claim 29, Babiarz et al. discloses detecting a send request cutoff that fits the send bandwidth and is associated with a lowest priority that fits within the send bandwidth (See page 4 paragraph 48 and Figure 5 of Babiarz et al. for reference to the certain priority being a cutoff priority based on a last request conforming to the current bandwidth limitations). Babiarz et al. does not disclose ranking the send requests according to respective priorities.

With respect to claim 35, Babiarz et al. discloses a processor-accessible media comprising processor-executable instructions (See page 5 paragraph 53 of Babiarz et al. for reference to a system and method being implemented by processors operating in accordance with stored instructions). Babiarz et al. also discloses formulating send requests having send priorities (See page 4 paragraphs 47-48 of Babiarz et al. for reference to call admission requests including priority levels). Babiarz et al. further discloses ascertaining respective threshold priorities based on send priorities and send bandwidths, determining if the requests are honored using the threshold priorities (See page 4 paragraph 48 of Babiarz et al. for reference to receiving a certain priority, which is a threshold priority, based on priorities and bandwidth limitations, where calls above the certain priority may be admitted and

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while other calls are not, meaning the priority of a call admission request is compared to the certain priority and a determination of whether the call admission request is selected is made in response to the comparison). Babiarz et al. does not disclose ranking the send requests according to respective priorities for each time slot.

With respect to claim 38, Babiarz et al. does not disclose obtaining intermediate threshold priorities based on prioritized ranking and bandwidths for each time slot.

With respect to claims 26, 28, 29, 35, and 38, Klotsche, in the field of communications, discloses ranking requests by priority for transmission in time slots, detecting a last send request corresponding to a cutoff using the ranked priority and partially sending the last send request if it is only partially within the send bandwidth (See column 10 lines 17-27 of Klotsche for reference to ranking requests from highest to lowest priority, servicing all time slot requests in priority order until a last request fitting into available time slots is determined, and partially sending the last request if it does not completely fit in the last available time slot).

Ranking requests by priority for transmission in time slots, detecting a last send request corresponding to a cutoff using the ranked priority and partially sending the last send request if it is only partially within the send bandwidth has the advantage of allowing the entire bandwidth to be used in the most efficient manner based on priorities.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Klotsche, to combine ranking requests by priority for transmission in time slots, detecting a last send request corresponding to a

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cutoff using the ranked priority and partially sending the last send request if it is only partially within the send bandwidth, as suggested by Klotsche, with the system and method of Babiarz et al., with the motivation being to allow the entire bandwidth to be used in the most efficient manner based on priorities.

With respect to claim 30, Babiarz et al. discloses the scheduler and sender being on separate devices (See page 4 paragraph 49 and Figure 3 of Babiarz et al. for reference to the clients that act as a sender and scheduler being on separate devices).

With respect to claim 31, Babiarz et al. discloses receiving a send request and transmitting an acknowledgement if the send request is selected (See page 5 paragraph 52 and Figure 6 of Babiarz et al. for reference to sending ACK messages in response to accepted requests).

With respect to claim 32, Babiarz et al. discloses determining that a request is being honored if the send priority is more important than the threshold priority, an acknowledgement is received, and the threshold priority is final (See page 4 paragraph 48, page 5 paragraph 52 and Figures 5 and 6 of Babiarz et al. for reference to accepting a request if its priority is above the certain priority and sending ACK messages in response to accepted requests).

With respect to claims 36 and 40, Babiarz et al. discloses that request bandwidths comprise a percentage less than 100 percent (See page 4 paragraph 48 and Figure 5 of Babiarz et al. for reference to requests taking up less than the entire bandwidth).

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With respect to claim 37, Babiarz et al. discloses transmitting subsequent requests in response to the threshold priorities (See page 4 paragraph 48 and Figure 5 of Babiarz et al. for reference to transmitting further requests in response to the certain priority).

10. Claims 33, 34, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babiarz et al. in view of Klotsche and Gonzalez et al.

With respect to claims 33, 34, and 39, the combination of Babiarz et al. and Klotsche does not disclose that if the send request is not selected, determining if the priority of the send request is more important than at least one other threshold priority from another sender and, if so, transmitting a send request to the sender.

With respect to claims 33, 34, and 39, Gonzalez et al., in the field of communications, discloses that when a send request is not selected, it is determined if the priority of the send request is more important than a threshold priority from another sender and, if so, transmitting a send request to the sender (See Section 3 titled "Load Sharing in Distributed VOD Systems" on page 6 of Gonzalez et al. for reference to if a request does not have priority to be serviced by a server determining if another server can service the request, and if so, sending a request to the another server). Using a method where when a send request is not selected, it is determined if the priority of the send request is more important than a threshold priority from another sender and, if so, transmitting a send request to the

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sender has the advantage of allowing data requests to be serviced from a different source even if the first requested source cannot service the request.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Gonzalez et al., to combine using a method where when a send request is not selected, it is determined if the priority of the send request is more important than a threshold priority from another sender and, if so, transmitting a send request to the sender, as suggested by Gonzalez et al., with the system and method of Babiarz et al. and Klotsche, with the motivation being to allow data requests to be serviced from a different source even if the first requested source cannot service the request.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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HÚY D. VU

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2600